# ICSI 311 Assignment 10 – Finish the Interpreter

**You must submit .java files. Any other file type will be ignored. Especially “.class” files.**

**You must not zip or otherwise compress your assignment. Blackboard will allow you to submit multiple files.**

***You must submit buildable .java files for credit.***

Create a Java stack of type Node as a local variable. This will be for gosub and return.

IfNode – Process the Boolean expression (more on this later). If true, set the currentNode to the **FILL IN**

GotoNode – set the currentNode to the label lookup.

GosubNode – Push the next node in the statements list onto our stack. Set the currentNode to the label lookup (from the map) for the gosub’s label.

ReturnNode – Pop a value from the stack. Set the currentInstruction to be that Node.

ForNode – Create/get the variable from the int variable map. If you created it, set it to the initialization. If not, add the step to the variable (default is 1). If the variable is past the limit, set currentNode = the node after NEXT (we pre-computed this in the last assignment) and delete the variable from the map.

NextNode – Set the currentNode to the ForNode.

We need to process Boolean nodes for If. Remember that either (or both) sides could be an expression, so you will need to evaluate them using the Evaluate\*MathOp from last assignment.

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| Rubric | Poor | OK | Good | Great |
| Comments | None/Excessive (0) | “What” not “Why”, few (5) | Some “what” comments or missing some (7) | Anything not obvious has reasoning (10) |
| Variable/Function naming | Single letters everywhere (0) | Lots of abbreviations (5) | Full words most of the time (8) | Full words, descriptive (10) |
| Boolean Expression | None work (0) | A few work (7) | Most work (13) | All work (20) |
| For/Next | Don’t exist (0) |  | Attempted (5) | Correct(15) |
| If | Don’t exist (0) |  | Attempted (5) | Correct(15) |
| Goto | Don’t exist (0) |  | Attempted (5) | Correct(15) |
| Gosub/Return | Don’t exist (0) |  | Attempted (5) | Correct(15) |